#### ORDINANCE NO. 441

# AN ORDINANCE REGULATING AND CONTROLLING EROSION AND SEDIMENT ON DEVELOPMENT SITES WITHIN THE CITY OF BAY ST. LOUIS, MISSISSIPPI

WHEREAS, the governing authorities of the City of Bay St. Louis, Mississippi (the "City") did, in March of 2003, adopt a Stormwater management Plan (the "Plan") pursuant to the requirements of the Federal Phase II Stormwater Regulations (the Regulations"); and

WHEREAS, the Plan calls for the adoption of certain ordinances in order to bring the City into compliance with the Regulations.

NOW THEREFORE, BE IT ORDAINED by the governing authorities of the City of Bay St. Louis, Mississippi, as follows:

# **Section 1. Introduction/Purpose**

During the construction process, soil is highly vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of aquatic habitat for fish and other desirable species. Eroded soil also necessitates repair of sewers and ditches and the dredging of lakes. In addition, clearing and grading during construction cause the loss of native vegetation necessary for terrestrial and aquatic habitat.

As a result, the purpose of this regulation is to safeguard persons, protect property, and prevent damage to the environment in Bay St. Louis, Mississippi. This ordinance will also promote the public welfare by guiding, regulating, and controlling the design, construction, use and maintenance of any development or other activity that disturbs or breaks the topsoil or results in the movement of earth on land in Bay St. Louis, Mississippi.

#### **Section 2. Definitions**

"Clearing", means any activity that removes or disturbs the vegetative surface cover.

"Drainage Way", means any channel that conveys surface runoff throughout the site.

"Erosion Control", means a measure or activity that prevents erosion.

"Erosion and Sediment Control Plan", means a set of plans prepared by or under the direction of a licensed professional engineer or certified contractor indicating the specific measures and sequencing to be used to control sediment and erosion on a development site during and after construction.

"Grading", means excavation or fill of material, including the resulting conditions thereof.

"Perimeter Control", means a barrier that prevents sediment from leaving a site by filtering sediment-laden runoff or diverting it to a sediment trap or basin.

"Phasing", means clearing a parcel of land in distinct phases, with the stabilization of each phase completed before the clearing of the next.

"Sediment Control", means measures that prevent eroded sediment from leaving the site.

"Site", means a parcel of land or a contiguous thereof, where grading work is performed as a single unified operation.

"Permit", means a permit issued by the municipality for the construction or alteration of ground.

"Site Development", means improvements and structures for the control of erosion, runoff and grading.

"Stabilization", means the use of practices that prevent exposed soil from eroding

"Start of Construction", means the first land disturbing activity associated with a development, including land preparation such as clearing, grading, and filling; installation of streets and walkways; excavation for basements, footing, piers, or foundation; erection of temporary forms; and installation of accessory buildings such as garages.

"Stormwater Design Manual", means the <u>Planning and Design Manual for the Control of Erosion</u>, <u>Sediment and Stormwater</u> written by the Mississippi Soil and Water Conservation Commission and the USDA Soil Conservation Service

"Watercourse", means any body of water, including, but not limited to lakes, ponds, rivers or streams.

"Waterway", means a channel that directs surface runoff to a watercourse or to the public storm drain.

# **Section 3. Permits**

# 3.1 <u>Permits Required for Land Disturbance</u>

No land owner or land operator shall receive any zoning compliance certification, building, grading or other land development permits required for land disturbance activities without first meeting the requirements of this ordinance prior to commencing the proposed activity.

# 3.2 Exceptions to Land Disturbance Permit

No site development permit is required for the following activities:

- 1. Any emergency activity that is immediately necessary for the protection of life, property, or natural resources.
- 2. Existing nursery, forestry or logging or agricultural; operations conducted as a permitted main or accessory use.

# 3.3 Application Requirements for Single-Family Residences or multi Family Complexes under three units

Unless specifically excluded by this ordinance, landowners proposing the development of a single family residential unit or a multi-family complex under three units shall submit to the Bay St. Louis Building Official a permit application on a form provided by the Bay St. Louis Building Office for the purpose and a non refundable permit review fee.

# 3.4 <u>Application Requirements for Multi-Family Complexes greater than three units, Commercial Activities and Industrial Activities on Less than One Acre</u>

Unless specifically excluded by the Ordinance, landowners proposing the development of commercial or multi-family units of four or more units and on a site under one acre in size, shall submit a Stormwater Management Plan as part of their Site Plan Review Documentation, A Stormwater Maintenance Agreement, and a non refundable permit review fee to the Bay St. Louis Building Office.

# 3.5 Application Requirements for Multi-Family Complexes greater than Three Units, Commercial Activities and Industrial Activities on One Acre or More

Unless specifically excluded by the Ordinance, landowners proposing the development of commercial or multi-family units of four or more units and on a site one acre or more, shall submit a copy of their Stormwater Management Plan, as required by MDEQ under the NPDES Phase I and Phase II Programs as part of their Site Plan Review Documentation, a Stormwater Maintenance Agreement and a non refundable permit review fee to the Bay St. Louis Building Office.

# 3.6 Required Identification of Principals

Each application shall bear the name and address of the owner or developer of the site and of any consulting firm retained by the applicant, together with the name of the applicant's principal contact at such firm.

# 3.7 Activities to Occur in Accordance with Approved Erosion and Sediment Control

Each application shall include a statement that any land clearing, construction, or development involving the movement of earth shall be in accordance with the Erosion and Sediment Control Plan and that a contractor, experienced with Erosion and Sediment Control (Certified Contractor) shall be on site on all days when construction or grading activity takes place.

#### Section 4. Review and Approval

#### 4.1 Application Procedure

- 4.1.1 Applications for land disturbance activity permits must be filed with the Bay St. Louis Building Office on any regular business day.
- 4.1.2 Applications for Single Family Residential Units and Multi-Family Units of three or fewer units will be reviewed by the Building Official or his designee. The Building Official will act on all applications within seven (7) working days after the applicant has fully complied with provisions of this Ordinance. The Building Official shall either issue a Permit or notify the applicant in writing of the reason for the refusal.
- 4.1.3 Applications for all Commercial and Multi-Family Units of four units or more should submit a Stormwater Management Plan and Stormwater Maintenance Agreement as part of the Site Plan Review Documentation. Within sixty (60) days of receiving an application for site plan review, the Bay St. Louis Planning Commission shall act to approve, disapprove, or approve with conditions the site plan application. In the case of approval with conditions, the Bay St. Louis Planning Commission shall specify what conditions are necessary.

#### 4.2 Plan Revision if Denied

If the Erosion and Sediment Control Plan is disapproved, the applicant may revise the stormwater plan or agreement. If additional information is submitted, the Building Official shall have 30 business days from the date the additional information was received to inform the applicant that the plan is either approved or disapproved.

# 4.3 Failure by Building Department to Take Official Action

Failure of the Building Official to act on an original or revised application within the proper time frame shall authorize the applicant to proceed in accordance with the plans as filed unless such time is extended by agreement between the applicant and the Building Officer. Pending preparation and approval of a revised plan, development activities shall be allowed to proceed in accordance with conditions established by the Building Office.

# Section 5. Erosion and Sediment Control Plan

The purpose of the Erosion and Sediment Control plan is to aid developers in maintaining soils on the construction site and to avoid the migration of soils and sediment into waterways, drainage channels and stormwater conveyance systems, thereby impairing water quality and providing a barrier to drainage.

The Stormwater Design Manual contains an outline of elements included in an Erosion and Sediment Control Plan, and provides a sample plan. The following are required elements of Erosion and Sediment Control Plan.

#### 5.1 **Project Description**

Erosion and Sediment Control Plan should include:

- (1) The purpose, size of the area to be disturbed and the location of the area to be disturbed,
- (2) Site description to include drainage ways and land cover conditions,
- (3) The identification of land use and cover conditions on the adjacent properties,
- (4) A description of the soils, and
- (5) The name, address and telephone number of contact personnel responsible for designing the plan and responsible for implementing the plan.

# 5.2 Planned Erosion and Sediment Control Structures and Vegetative Practices

The Erosion and Sediment Control Plan should Provide:

(1) The beginning and completion date for construction activities,

- (2) The sequence of all construction-related erosion and sediment control practices and vegetative practices, and
- (3) The location and installation schedule for all erosion and sediment control practices and vegetative practices.

# 5.3 Operation and Maintenance Plan for Erosion and Sediment Control Structures and Vegetative Practices

The Erosion and Sediment Control Plan shall provide an operation and maintenance plan control features which will include regular maintenance schedule during construction, practice reestablishment, repair, sediment removal and mowing due to unexpected conditions.

# 5.4 <u>Drawing, Specification or Descriptions of the Erosion and Sediment Control Practices</u> and Vegetative Practices

Utilize detailed descriptions and drawing of the types of practices that will be used to control erosion and sediment on site.

#### 5.5 <u>Vicinity U.S. Geological Survey Quadrangle Map</u>

The Erosion and Sediment Control Plan should include a U.S. Geological Survey Quadrangle Map of the site area with the location of areas proposed for land disturbing activities.

# 5.6 A Site Topographic Map

Provide a site topographic map as part of the Erosion and sediment Control Plan and include preconstruction topography, locate drains, property lines, construction work limits and utilities. Locate trees and greenery to be preserved on this map. Scale should be no less than 1" = 60'.

#### 5.7 A Site Development Map

Provide a map and locate all proposed erosion and sediment control practices and vegetative practices on the site. Also locate buildings and paved areas, raw materials or finished product stock pile areas, equipment storage areas, processing areas, construction entrances, access to haul roads, and finished grades on a duplicate of the site topographic map.

#### 5.8 A Site Erosion and Sediment Control Map

Provide a map and identify the location of all the erosion and sediment control practices and vegetative practices with the location of all permanent construction, associated paved areas and finished grades.

# **5.9** Continuing Education for All Employees to Inform Employees of Plan Requirements Plan to provide education to all employees about the requirements of the Erosion and Sediment Control Plan. This should include schedule of activities, updates on the installation of new practices, regular maintenance and reestablishment, repair and sediment removal.

# **Section 6. Design Requirements**

#### 6.1 **Grading Practices**

Grading, erosion control practices, sediment control practices and waterway crossing shall meet the design criteria set forth in the most recent version of the Stormwater Design Manual, and shall be adequate to prevent transportation of sediment from the site to the satisfaction of the Building Department. Cut and fill slopes shall be no greater than 2:1, except as approved by the Building Department to meet other community or environmental objectives.

#### **6.2** Natural Vegetation Protection

Clearing and grading of natural resources, such as forests and wetlands, shall not be permitted, except when in compliance with all other chapters of this Code. Clearing techniques that retain natural vegetation and drainage patterns, as described in the Stormwater Design Manual, shall be used to the satisfaction of the Building Office.

# 6.3 No Clearing to Begin until sediment Control Devices Installed

Clearing, except that necessary to establish sediment control devices, shall not begin until all sediment control devices have been installed and have been stabilized.

# 6.4 <u>Construction Sequencing and Phasing</u>

Phasing and sequencing of construction and clearing, as described in the Stormwater Design Manual, shall be the preferred construction method and will be encouraged to be adopted on larger sites.

# 6.5 <u>Erosion control requirements shall include the following:</u>

- (1) Soil stabilization shall be completed within five days of clearing or inactivity in construction.
- (2) If seed or another vegetative erosion control method is used, it shall become established within two (2) weeks or the Building Official may require the site to be reseeded or a nonvegetative option employed.
- (3) Special techniques that meet the design criteria outlined in the Stormwater Design Manual on steep slopes or in drainage ways shall be used to ensure stabilization.
- (4) Soil stockpiles must be stabilized or covered to prevent erosion.
- (5) The entire site must be stabilized to control erosion at the close of construction for any pro-longed period.
- (6) Techniques shall be employed to prevent blowing of dust or sediment from the site.
- (7) Techniques that divert upland runoff past disturbed slopes shall be employed.

#### 6.6 Sediment Control requirements shall include:

- (1) Settling basins, sediment traps, or tanks and perimeter controls.
- (2) Settling basins that are designed in a manner that allows adaptation to provide long term stormwater management, if required by the Building Official.
- (3) Protection for adjacent properties by the use of a vegetated buffer strip in combination with perimeter controls.

# 6.7 Waterway and water course protection requirements shall include:

- (1) A temporary stream crossing installed and approved by Building Official if a wet watercourse will be crossed regularly during construction.
- (2) Stabilization of the watercourse channel before, during and after any in-channel work.
- (3) All on-site stormwater conveyance channels designed according to the criteria outlined in the Stormwater Design Manual.
- (4) Stabilization adequate to prevent erosion located at the outlets of all pipes and paved channels.

# 6.8 <u>Construction site sanitary waste requirements shall include:</u>

- (1) In areas where sanitary sewer collection and treatment is available, existing sanitary facilities shall be provided for all construction personnel during the active construction process.
- (2) In areas where there is no available sanitary sewer collection and treatment, non-sewered toilets must be available to works during the active construction process.
- (3) For all sites where construction areas are active, non-sewered toilets or existing sanitary toilets must be available within 200 feet walking distance of any active construction sites.
- Owners of property containing portable toilets are responsible for maintaining the portable toilets in a sanitary condition at all times
- (5) Portable toilets shall be placed at least one hundred (100) feet from any body of water and installed in such a way that there is no possibility of a spill or run-off into body of water.

# 6.9 <u>Construction site access requirements shall include:</u>

- (1) A temporary access road provided to all sites.
- Other measures required by the Building Official in order to ensure that sediment is not tracked onto public streets by construction vehicles or washed into storm drains.

# **Section 7. Inspection**

# 7.1 On-Site Inspections

The Building Official or designed agent shall make inspections as hereinafter required and either shall approve that portion of the work completed or shall notify the permittee wherein the works fails to comply

with the Erosion and Sediment Control Plan as approved. Plans for grading, stripping, excavating, and filling work bearing the stamp of approval of the Building Official shall be maintained at the site during the progress of the work. To obtain inspections, the permittee shall notify the Bay St. Louis Building Official at least two working days before the following:

- 1. Start of construction
- 2. Installation of sediment and erosion measures
- 3. Completion of site clearing
- 4. Completion of rough grading
- 5. Completion of final grading
- 6. Completion of final landscaping

# 7.2 <u>Permittee Progress Reports</u>

The permittee or his/her agents shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved Erosion and Sediment Control Plan. The purpose of such inspections will be to determine the overall effectiveness of the control plan and the need for additional control measures. All inspections shall be documented in written form on the forms approved by the Mississippi Department of Environmental Quality and retained on-site for inspection by the Bay St. Louis Building Office.

# 7.3 Right to Insect at Any Time

The Bay St. Louis Building Official or its designated agents shall enter the property of the applicants as deemed necessary to make regular inspections to ensure the compliance with all sections of this Ordinance.

#### Section 8. Enforcement

#### 8.1 Violations

No person shall construct, enlarge, alter, repair or maintain any grading, excavation, or fill or cause the same to be done, contrary to or in violation of any terms of this ordinance. Any person found to be in violation of any of the terms and provisions of this Ordinance shall be found guilty of a misdemeanor and subject to a fine not to exceed \$500 or imprisoned for no more than ninety (90) days or both. A continuance of a violation without reasonable effort on the part of the defendant to correct same shall be and constitute a new and separate offense each day.

#### **8.2** Notice of Violation

If the Building Official shall find that the provisions of this Ordinance are violated, the person responsible for such violation shall be notified in writing, indicating the nature of the violation and ordering action necessary to correct it. Among those actions which he/she shall order is discontinuance of any actions on site. In such case that the Building Official is left without any further recourse but to seek police assistance, he may call upon the Bay St. Louis Police Department to furnish him with necessary police personnel to fulfill his duties.

# Stop Work Order

In the case that any person holding a site development permit pursuant to this ordinance violates the terms of the permit or implements site development is such a manner as to materially adversely affect the health, welfare or safety of person residing or working in the neighborhood or development site so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood, the Building Official may institute injunction, mandamus, or other appropriate action in proceeding to prevent violation of any element of this Ordinance.

#### 8.3 Restoration of Lands

Violators may be required to restore land to its undisturbed condition. In the event that restoration is not undertaken within a reasonable time, after notice, the City of Bay St. Louis may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

The provisions and sections of this ordinance shall be deemed to be inseparable, and the invalidity of any portion of this ordinance shall not affect the validity of the remainder.

#### Section 10.

That all Ordinances and parts of Ordinances in conflict with this Ordinance are hereby repealed.

#### Section 11.

This ordinance shall take effect thirty (30) days following its adoption.

#### **ORDINANCE NO. 442**

# AN ORDINANCE REGULATING STORMWATER RUNOFF FROM DEVELOPMENT SITES WITHIN THE CITY OF BAY ST. LOUIS, MISSISSIPPI

WHEREAS, the governing authorities of the City of Bay St. Louis, Mississippi (the "City") did, in March of 2003, adopt a Stormwater management Plan (the "Plan") pursuant to the requirements of the Federal Phase II Stormwater Regulations (the Regulations"); and

WHEREAS, the Plan calls for the adoption of certain ordinances in order to bring the City into compliance with the Regulations.

NOW THEREFORE, BE IT ORDAINED by the governing authorities of the City of Bay St. Louis, Mississippi, as follows:

#### **Section 1. General Provisions**

#### 1.1 Findings of Fact

It is hereby determined that:

Land development projects and associated increases in impervious cover alter the hydrologic response of local watersheds and increase stormwater runoff rates and volumes, flooding, stream channel erosion, and sediment transport and deposition; and this stormwater runoff contributes to increased quantities of water-borne pollutants, Stormwater runoff, soil erosion and nonpoint source pollution can be controlled and minimized through the regulation of stormwater runoff from development sites.

Therefore, the City of Bay St. Louis, Mississippi establishes this set of water quality and quantity policies applicable to all surface to provide reasonable guidance for the regulation of stormwater runoff for the purpose of protecting local water resources from degradation. It is determined that the regulation of stormwater runoff discharges from land development projects and other construction activities in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion, stream channel erosion, and nonpoint source is in the public interest and will prevent threats to public health, safety and welfare.

# 1.2 Purpose

The purpose of this ordinance is to establish minimum storm water management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in watersheds within this jurisdiction. This ordinance seeks to meet that purpose through the following objectives;

- (1) Minimize increase in storm water runoff from any development in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels:
- (2) Minimize increase in nonpoint source pollution caused by storm water runoff development which would other wise degrade local water quality;
- (3) Minimize the annual volume of surface water runoff which flows from any specific site during and following development to not exceed the pre-development hydrologic regime to the maximum extent practicable;
- (4) Reduce storm water runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through storm water management controls and to ensure that these management controls are properly maintained and pose no threat to public safety.

# 1.3 Applicability

All development or redevelopment projects must provide a Stormwater Control Plan as part of their site plan review process and prior to disturbance of the site.

Single family and all multi-family units under four units, must submit a Standard Erosion Control Plan and Drainage Plan on a Worksheet provided by the Bay St. Louis Building Office prior to any disturbance of a site.

Projects larger than one acre must provide a copy of their completed Stormwater Plan, which is required by MDEQ as part of their NPDES Phase I or Phase II permit, with the site Plan Review documents.

# 1.4 Exceptions to Applicability

- 1.4.1 To prevent the adverse impacts of stormwater runoff, performance criteria must be met at new development sites. These standards apply to any construction activity disturbing land. The following activities may be exempt from these stormwater criteria:
- a. Any logging and agricultural activity which is consistence with approved soil conservation plan or timber management plan or Forestry Best Management Practices Handbook published by the Mississippi Forestry Commission, as applicable.
- b. Additions or modifications to existing single family structures.
- c. Developments that are part of larger redevelopment or development common plan provided that a Stormwater Management Plan has been completed and a approved by MDEQ.
- 1.4.2 The Bay St. Louis City Council shall have the power to authorize variances from the provisions or requirements of this Ordinance as will not be contrary to the public interest, provided that the applicant for an exception follows the rules and procedures required by the Bay St. Louis Planning Commission as defined within section 1005 of the Bay St. Louis Zoning Ordinance. No variance from the strict application of any provision shall be granted unless it is found that:

  a. Literal interpretation of the provisions of the Ordinance would deprive the owner of reasonable use of their land; and
  - b. Granting the variance would be in harmony with the general purpose and intent of this Ordinance and will not be injurious to the neighborhood or otherwise detrimental to the public welfare.

# 1.5 Repeal of Conflicting Ordinances

All ordinances or part of an Ordinance, in conflict with this Ordinance, or inconsistent with the provisions of this Ordinance, are hereby repealed to the extent necessary to give this Ordinance full force and effect.

#### 1.6 Validity

If for any reason, one or more articles, sections, or subsections of this Ordinance are held invalid or unconstitutional, such judgment shall not effect, invalidate or prejudice the remaining provisions of this Ordinance.

# 1.7 <u>Stormwater Design Manual</u>

The Stormwater Design Manual identified in the Ordinance will be the <u>Planning and Design manual for the Control of Erosion</u>, <u>Sediment</u>, <u>and Stormwater</u> written by the Mississippi Department of Environmental Quality, the Mississippi Soil and Water Conservation Commission and the USDA Soil Conservation Service.

#### **Section 2. Definitions**

- "Applicant" means a property owner or agent who has filed an application for a stormwater management permit.
- "Building", any structure built for the support, shelter, or enclosure or person, animals, chattels, or moveable property of any kind and which is permanently affixed to the land.
- "Building Official", means any Bay St. Louis employee or elected or appointed official charged with enforcement of the Ordinance.
- "Certificate of Occupancy", a permit issued by the Zoning Officer indicating that the use of the building or land in question is in conformity with the Zoning Ordinance or that there has been a legal variance there from, as provided by ordinance.
- "Channel", means a natural or artificial watercourse with definite bed and banks that conducts continuously or periodically flowing water.
- "Dedication", means the deliberate appropriation of property by its owner for general public use.
- "Detention", means the temporary storage of stormwater runoff in a stormwater management practices with goals of controlling peak discharge rates and providing gravity settling of pollutants.
- "Developer", means a person who undertakes land disturbance or development activities.
- "Development", any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operation.
- "Drainage Easement", means a legal right granted by the landowner to a grantee allowing use of private land for stormwater management purposes.
- "Erosion and Sediment Control Plan", means a plan that is designed to minimize the accelerated erosion and sediment runoff at a site during construction activities.
- "Forestry Best Management Practices", means silviculturally practices developed and endorsed by the Mississippi Forestry Commission to prevent soil erosion and surface water degradation due to timber harvest.
- "Hotspot", means as area where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater.
- "Impervious Coverage", means those surfaces that cannot effectively infiltrate rainfall (e.g., building rooftops, pavement, sidewalks, driveways, etc.)
- "Industrial Stormwater Permit", means a National Pollutant Discharge Elimination System permit issued to a commercial industry or group of industries which regulates the pollutant levels associated with industrial stormwater discharges or specifies on-site pollution control strategies.
- "Infiltration", means the process of percolating stormwater into the subsoil.
- "Infiltration Facility", means any structure or device designed to infiltrate water to the subsurface. These facilities may be above grade or below grade.

"Jurisdictional Wetland", means an area that is subject to permit jurisdiction by the U.S. Army Corps of Engineers under Section 10 of the Rivers and Harbor Act or Section 404 of the Clean water Act.

"Land Disturbance Activity", means any activity which changes the volume or peak flow discharge rate of rainfall from the land surface. This may include grading, digging, cutting, scraping, or excavating of soil, placement of fill materials, paving, construction, substantial removal of vegetation, or any activity which bares soil or rock or involves the diversion or piping of any natural or man-made watercourse.

"Landowner", means the legal or beneficial owner of land, including those holding the right to purchase or lease the land, or any other person holding proprietary rights in the land.

"Maintenance Agreement", means a legally recorded document that acts as a property deed restriction and which provides for long-term maintenance of stormwater management practices. "Nonpoint Source Pollution", means pollution form any source other than from any discernable, confined and discrete conveyances, and shall include, but not be limited to, pollutants from agricultural, silviculture, mining, construction, subsurface disposal and urban runoff sources.

"Off-Site Facility", means a stormwater management measure located outside the subject property boundary described in the permit application for land development activity.

"On-Site Facility", means a stormwater management measure located within the subject property boundary described in the permit application for land development activity. "Recharge", means the replenishment of underground water reserves.

"Redevelopment", means any construction, alteration or improvement exceeding 500 square feet in areas where existing land use is high density commercial, industrial, institutional or multi=family residential.

"Stop Work Order", means an order issued which requires that all construction activity on a site be stopped.

"Stormwater Design Manual", means the Planning and Design Manual for the Control of Erosion, Sediment and Stormwater written by the Mississippi Department of Environmental Quality, Mississippi Soil and Water Conservation Commission and the USDA Soil Conservation Service.

"Stormwater Management", means the use of structural or non-structural practices that are design to reduce stormwater runoff pollutant loads, discharge volumes, and/or peak flow discharge rates.

"Stormwater Retrofit", means a stormwater management practice designed for an existing development site that previously had either no stormwater management practice in place or a practice inadequate to meet the stormwater management requirements of the site.

"Stormwater Runoff", means water flow on the surface of the ground, resulting from precipitation.

"Stormwater Treatment practices", means measures, either structural or nonstructural, that are determined to be the most effective, practical means or preventing or reducing point source or nonpoint source pollution inputs to stormwater runoff and water bodies.

"Variance", means a modification from the literal provisions of this Ordinance in cases where a literal enforcement of its provisions would result in unnecessary hardship due to circumstances unique to the individual property for which the variance is granted.

"Watercourse", means a permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

#### Section 3. Permit Procedures and Requirements

No land owner or land operator shall receive any zoning compliance certification, building; grading or other land development permits required for land disturbance activities without first meeting the requirement of this ordinance prior to commencing the proposed activity.

# 3.2 Application Requirements

Unless specifically excluded by this Ordinance, landowners proposing the development of a single family residential unit or a multi-family complex under three units shall submit to the Bay St. louis Building Official a permit application on a form provided by the Bay St. Louis Building Office for that purpose and a non refundable permit review fee.

Unless specifically excluded by the ordinance, landowners proposing the development of commercial or multi-family units of four or more units and on a site under one acre in size, should submit a Stormwater Management Plan as part of their Site Plan Documentation, a Stormwater maintenance Agreement, and a non refundable permit review fee to the Bay St. Louis Building Office.

Unless specifically excluded by the Ordinance, landowners proposing the development of commercial or multi-family units or four or more units and on a site one acre or more, should submit a copy of their Stormwater management Plan, as required by MDEQ under the NPDES Phase I and Phase II Programs as part of their Site Plan Review Documentation, a Stormwater Maintenance Agreement and a non refundable permit review fee to the Bay St. Louis Building Office.

The Stormwater Management Plan shall be prepared to meet the requirements of Section 5 of this Ordinance. The Stormwater Maintenance Agreement shall be prepared to meet Section 9 of this Ordinance and fee shall be established by the Bay St. Louis City Council.

# 3.3 Application Procedure

- 3.3.1 Applications for land disturbance activity permit must be filed with the Bay St. Louis Building Office on any regular business day.
- 3.3.2 Applications for Single Family Residential Units and Multi-Family Units of three or fewer units will be reviewed by the Building Official and a designee of the Site Plan Review Committee. The Building Official will act on all applications within seven (7) working days after the applicant has fully complied with provisions of this Ordinance. The Building Official shall either issue a Permit or notify the applicant in writing of the reasons for the refusal.
- 3.3.3 Applications for all Commercial and Multi-Family Units of four units or more should submit a Stormwater Management Plan and Stormwater maintenance Agreement as part of the Site Plan Review Documentation. Within sixty (60) days of receiving an application for site plan review, the Bay St. Louis Planning Commission shall act to approve, disapprove, or approve with conditions the site plan application. In the case of approval with conditions, the Bay St. Louis Planning Commission shall specify what conditions are necessary.

If the stormwater management plan or maintenance agreement is disapproved, the applicant may revise the stormwater plan or agreement. If additional information is submitted, the Planning Commission shall have 15 business days from the date the additional information was received to inform the applicant that the plan and maintenance agreement are either approved or disapproved.

#### 3.4 Permit Duration

Permits issued under this section shall be valid from the date of issuance through the date the Bay St. Louis Building Official notifies the permit holder that all stormwater management practices have passed the final inspection under permit conditions.

# **Section 4. Waivers to Stormwater Management Requirements**

# 4.1 Waivers for Providing Stormwater Management

The Bay St. Louis City Council shall have the power to authorize variances from the provisions or requirements of this Ordinance as will not be contrary to the public interest, provided that the applicant for an exception follows the rules and procedures required by the Bay St. Louis Planning Commission as defined within Section 1005 of the Bay St. Louis Zoning Ordinance. No variance from the strict application of any provision shall be granted unless it is found that:

- a. Literal interpretation of the provisions of the Ordinance would deprive the owner of reasonable use of their land; and
- b. Granting the variance would be in harmony with the general purpose and intent of this Ordinance and will not be injurious to the neighborhood or otherwise detrimental to the public welfare.

# Section 5. General Performance Criteria for Stormwater Management

Unless determined by the Bay St. Louis City Council to be exempt or granted a variance, the following performance criteria shall be addressed for stormwater management at all sites:

- (A) All sites shall establish stormwater management practices to control the peak flow rates of stormwater discharge associated with specified design storms and reduce the generation of stormwater for the site to provide treatment for both water quality and quantity. Peak post-construction stormwater runoff will not exceed peak pre=construction stormwater runoff from the site to the greatest extent possible.
- (B) All stormwater runoff generated from new development shall not discharge untreated stormwater directly into a jurisdictional wetland or local water body without adequate treatment. Where such discharge are proposed, the impact of the proposal on wetland functional values may be assessed using a method acceptable to the Bay St. Louis City Council. In no case shall the impact on functional values be any less than allowed by the Mississippi Department of Environmental Quality or the Mississippi Department of Marine Resources.
- (C) For new development, structural and non-structural Stormwater treatment Practices shall be designed to treat the first one inch of stormwater runoff.
- (D) For new development, sanitary wastewater treatment facilities shall be designed and installed to comply with existing Mississippi Department of Health regulations, and to prevent the discharge of untreated sanitary waste that could come in contact with stormwater runoff.
- (E) To protect stream channels form degradation, a specific channel protection shall be utilized. The criteria shall require 24 hour detention for runoff generated by a rainfall event based upon annual rainfall for the region.
- (F) Stormwater discharges to critical areas with sensitive resources (including shellfish beds, swimming areas, water supply reservoirs and groundwater recharge areas) may be subject to additional performance criteria, or may need to utilize or restrict certain stormwater management practices.
- (G) Certain industrial sites and sites of a certain size are required to prepare and implement a stormwater pollution prevention plan, and file a Notice of Intent (NOI) under the provisions of the National Pollutant Discharge Elimination System (NPDES) general permit. The stormwater pollution prevention plan requirements will be required to be submitted to the building official as part of the Site Plan Review Process.
- (H) Stormwater discharges from land uses or activities with higher potential pollutant loadings, known as "hotspots", may require the use of specific structural and pollution prevention practices.
- (I) Prior to design, applicants are requires to consult with the Building Official to determine if they are subject to additional stormwater design requirements.
- (J) The calculations for determining peak flows as found in the Stormwater Design Manual, Chapter 6. Stormwater Design Manual shall be used fro sizing all stormwater management practices.

#### Section 6. Basin Stormwater Management Design Criteria

# **6.1** <u>Minimum Control Requirements</u>

Projects shall be designed so that post-development peak discharge for the 10, 25, and 100 year frequency storm events will not exceed the pre-development peak discharge rates for the 10, 25, amd 100 year frequency storm events; unless the Bay St. Louis City Council grants the applicant a waiver or the applicant is exempt from such requirements.

In addition, if hydrologic or topographic conditions warrant greater control than that provided by the minimum control requirements, the Building Official reserves the right to impose any all additional requirements deemed necessary to control the volume, timing and rate of runoff.

# **6.2** Site Design Feasibility

Applicants should consider the following conditions of the site when they determine the types of practices they will use to control stormwater on the site. These include topography, the drainage area, the depth of the water table, soils, slopes, terrain and the location of environmentally sensitive areas located on site.

#### 6.3 **Specific Requirements**

The Stormwater Control Practices shall be designed to remove pollutants and reduce flow velocities, shall utilize an acceptable water quality pre-treatment requirement and shall capture and treat stormwater in accordance to specifications defined in the Stormwater Design Manual.

#### 6.4 <u>Landscaping Plans Required</u>

For any structural improvements proposed , a landscape plan which affords stabilizations of the areas adjacent to he improvements will be required.

#### 6.5 Maintenance Agreements

Enforceable operations and maintenance agreements are required to ensure the system will function as designed. The maintenance agreements will include any and all maintenance easements required to access and inspect the stormwater treatment practice, and to perform routine maintenance as necessary to ensure proper functioning of the stormwater treatment practice. The owners of the stormwater treatment practice must perform maintenance on the facility and direct their engineer to certify that annual maintenance was completed. This certification must be submitted to the Building Official, each year. In addition, a legally binding covenant specifying the parties responsible for the proper maintenance for all stormwater treatment practices shall be secured prior to issuance for any permits for land disturbance activities.

# Section 7. Requirements for Stormwater Management Approval

#### 7.1 Stormwater Management Plan Required for All Developments

Pre-Construction review and approval is required for all developments within the City. Landowners of proposed single family residential units and multi-family units under four units will submit the plan on a form provided by the Building Office.

Landowners of proposed commercial development and multi-family units larger than four units, and under one acre, will submit a Stormwater Management Plan as part of the Site development Process.

Landowners of proposed commercial development and multi-family units larger than four units and one acre or over will submit a copy of the Stormwater Management Plan required by MDEQ under the NPDES Phase I or Phase II Program.

# 7.2 <u>Stormwater Management Plan Requirements</u>

Required information for the Stormwater Management Plan includes the following information and data, prepared and certified by a registered professional engineer or certified contractor in the State of Mississippi. This information, submitted as a Stormwater management Plan will be submitted with Site Plan documents.

- (A) Existing Conditions shown on a topographic map with two foot (2') minimum contours of the land proposed for development or redevelopment. The following will be shown on the map:
  - 1. The banks and centerline of streams and channels;
- 2. The normal shoreline of lakes, ponds, coastlines and retention/detention basins and lines of inflow and outflow;
- 3. The location, size and slope of stormwater conduits and drainage swales;
- 4. Storm, sanitary and combined sewer and outfalls of record;
- 5. Delineation of upstream and downstream drainage features and watersheds which might be affected by the development;
- 6. Base flood (100-year) elevation (BFE) and floodways for the property;
- 7. Environmental features including limits of wetlands areas and any designated natural areas.
- (B) Stormwater Plan to be designed to safely and completed manage stormwater runoff onsite and detain increased stormwater runoff to meet standards defined in Section 5 and section 6 of this Ordinance. The plan shall be accompanied by maps and other descriptive material to include the following:
  - 1. The extent of drainage channels on site and direction of the flow of the channels and the flow from the site;
  - 2. Proposed stormwater conveyance practices to be onsite, extisting off-site stormwater conveyance system including receiving streams, channels and outfall and inlet locations. Include elevations of locations and high water elevations. Hydrologic and hydraulic design calculations for the pre-development and post-development condition for the design storm proposed in section 5. The calculations for determining peak flows are found in the Stormwater Design Manual, Chapter 6. Stormwater Design Manual shall be used for sizing all stormwater management practices. Calculations will include description of design storm frequency, intensity and duration, time of concentration, soil curve number or runoff coefficients, peak—runoff—rates and total runoff volumes, infiltration rates, culvert capacities, flow velocities, data on the increase in rate and volume of runoff for the design storm identified in Section 6. And documentation of sources for computation methods and field test results.
  - 3. Maintenance and repair Plan to include detailed and maintenance and repair procedures, timeframes for maintenance and proposed maintenance costs.
  - 4. Maintenance Agreements or Covenants and Maintenance Easements.
  - 5. Other environmental permits that may be required.
- (C) Sanitary waste treatment facilities shall be designed and located on the plan to comply with current Mississippi Department of Health Regulations.

#### 7.3 Performance Bond

The Bay St. Louis City Council may, at its discretion, require the submittal of a performance security or bond prior to issuance of a permit in order to insure that the stormwater practices are installed by the permit holder as required by the approved site plan within a specified period, not to exceed two (2) years. Such bond shall be in an amount adequate to cover the cost of the improvements as determined by the Council, plus an additional Twenty-Five Percent (25%) to cover contingencies, with surety and conditions satisfactory to the Council.

# **Section 8. Construction Inspection**

# 8.1 <u>Notice of Construction Commencement</u>

The applicant must notify the Building Official in advance before the commencement of construction.

# 8.2 Record Drawings

All applicants for commercial and multi-family residential units over four units are required to submit actual record drawings for any stormwater management practices located on-site after final construction is completed. The Plan must show the final design specification for all stormwater

management facilities and must be certified by a professional engineer. A final inspection is required before the release of any performance security, performance bond or guaranty.

# 8.3 <u>Landscaping and Stabilization Requirement</u>

Permanent vegetation must be seeded or planted within 30 days after the final grade is reached. Planting guidance for permanent vegetative practices is included in Chapter 5 of the Stormwater Design Manual.

Any area of revegetation must exhibit a survival of a minimum of seventy-five percent (75%) of the crop cover throughout the year immediately following revegetation. Revegetation must be repeated in successive years until the minimum seventy-five (75%) survival for one (1) year is achieved.

#### 8.4 Dedication of Facilities

Whenever drainage facilities are planned to serve several projects or a specific area deemed necessary by the Bay St. Louis Planning Commission, the drainage facilities may be dedicated to City of Bay St. Louis. When these projects are of a regional nature, the City will maintain these facilities. In these cases, access easements shall be provided to the City.

#### 8.5 <u>Inspection of Facilities</u>

The City Engineer shall inspect all drainage facilities while under construction. When facilities are not constructed according to approved plans, the City has the explicit authority to compel compliance and have any situations corrected which are not according to the approved plans. All drainage facilities located on private property, whether dedicated to the City or not, shall be accessible at all times for inspection by the City engineer or other responsible public official.

#### 8.6 Inspection of Sanitary Waste treatment Facilities

The City Engineer shall inspect all sanitary waste treatment facilities while under construction and upon completion to insure proper installation and connection to waste water collection systems when applicable. Proper function of sanitary waste treatment facilities is required prior final approval and issuance of a certificate of occupancy.

# Section 9. Maintenance and Repair of Stormwater Facilities

#### 9.1 Maintenance Easement

Prior to the issuance of a permit that has a stormwater management facility as one of the requirements of the permit, the applicant or owner of the site must execute a maintenance easements agreement that shall be binding on all subsequent owners of land served by the stormwater management facility. The agreement shall provide for access to the facility at reasonable times for periodic by the City or their contractor, agent or designee, and for regular assessments of property owners to ensure that the facility is maintained improper working condition to meet design standards and any other provisions established by this Ordinance. The easement agreement shall be recorded by the City in the land records.

#### 9.2 Maintenance Covenants

Maintenance of all stormwater management facilities shall be ensured through the creation of a formal maintenance covenant that must be approved by the City and recorded into the land record prior to final approval. As part of the covenant, a schedule shall be developed for when and how often maintenance will occur to ensure function of the stormwater management facility. The covenant shall also include plans for periodic inspections to ensure proper performance of the facility between scheduled cleanouts.

# 9.3 Requirements for Maintenance Covenants

All stormwater management facilities must undergo a regular yearly inspection process at a frequency sufficient to determine the functioning ability of the conveyance system and any repair needs; at a minimum this should include inspection prior to the beginning of Hurricane Season, prior to any forecasted major rains that may equal the design requirements and after any major rain events.

#### 9.4 Right-of-Entry Inspection

All drainage facilities located on private property, whether dedicated to the city or not, shall be accessible at al times for inspection by the City engineer or other responsible public officials. All sanitary waste

treatment facilities located on private property shall be accessible for inspection for proper function by the City engineer or other responsible public officials where there is reason to suspect that a malfunction has resulted in storm water runoff pollution by unsanitary waste.

#### 9.5 Records of Installation and Maintenance Activities

Parties responsible for the operation and maintenance of a stormwater management facility shall make records of the installation and of all, maintenance and repairs, and shall retain these records for at least five years. These records shall be made available to the City during inspection of the facility and other reasonable times upon request.

#### 9.6 Failure to Maintain Practices

The Building Official will notify the owner of the premises where the BMP is located in writing that maintenance is required. The owner will have 60 days from the receipt of such written notice to bring the BMP into proper working order.

#### Section 10. Enforcement and Penalties

#### 10.1 <u>Violations</u>

Any person found to be in violation of any of the terms and provisions of this Ordinance shall be found guilty of a misdemeanor and subject to a fine not to exceed \$500 or imprisoned for no more than ninety (90) days or both such fined and imprisonment. A continuance of a violation without reasonable effort on the part of the defendant to correct same shall be and constitute a new and separate offense each day.

# 10.2 Notice of Violation

If the Building Official shall find that the provisions of this ordinance are violated, the person responsible for such violation shall be notified in writing, indicating the nature of the violation and ordering action necessary to correct it. Among those actions which he/she shall order is discontinuance of any actions on site. In such case that the Building Official is left without any further recourse recourse but to seek police assistance, he may call upon the Bay St. Louis Police Department to furnish him with necessary police personnel to fulfill his duties.

# 10.3 Stop Work Order

In case any post-construction stormwater practice is constructed, reconstructed, altered, repaired, or converted or any person would be damaged by such violation, in addition to other remedies, the Building Official may institute injunction, mandamus, or other appropriate action in proceeding to prevent violation of the final plan or any element of this Ordinance.

#### 10.4 Restoration of Lands

Violators may be required to restore land to its undisturbed condition. In the events that restoration is not undertaken within a reasonable time, after notice, the City may take necessary corrective action, the cost of which shall become a lien upon the property until paid.

#### Section 11.

This Ordinance shall take effect thirty (30) days following its adopation.